

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-15. (Canceled).

16. (New) A ventricular assist device for use by a physician for treating a patient with a diseased heart, the device comprising:

at least one linear flow blood pump for fluid connection between an artery and a vein of the patient, said linear flow blood pump having an electronic receiving means for receiving an operating motor current;

a pacemaker implantable in a patient for sending electrical pulses to the patient's heart;

a monitor suitably fixable in or on the patient for measuring clinical signals from the heart in response to said electrical pulses sent by said pacemaker and for further measuring a clinical signal from at least one other organ of the patient; and

a control means in electrical communication with said linear flow blood pump, said pacemaker and said monitor and including an input means for entering a command, said control means simultaneously controlling said operating motor current of said linear flow blood pump and at least one of a pulse rate and voltage of said electrical pulses sent by said pacemaker based on said entered command and said clinical signals measured by said monitor.

17. (New) A ventricular assist device as defined in Claim 16, wherein said operating motor current of said linear flow blood pump controls a blood output pressure and volume of said pump.

18. (New) A ventricular assist device as defined in Claim 16, wherein said control means is pre-programmed with a prototype command, said control means controlling said linear flow blood pump and said pacemaker based additionally on said prototype command.

19. (New) A ventricular assist device as defined in Claim 16, comprising two linear flow blood pumps, wherein said control means controls said two pumps independently.

20. (New) A ventricular assist device as defined in Claim 16, wherein said control means controls said blood output pressure and volume of said linear flow blood pump by varying the magnitude and frequency of electrical motor currents of said pump.

21. (New) A ventricular assist device as defined in Claim 16, wherein said monitor includes a magnetic induction means for measuring said clinical signals from the heart and from the at least one other organ across the skin of the patient.

22. (New) A ventricular assist device as defined in Claim 16, wherein said control means transmits a radio signal to said pacemaker for controlling said pulse rate and voltage of said pacemaker.

23. (New) A ventricular assist device as defined in Claim 16, wherein said control means comprises a digital signal processor.

24. (New) A ventricular assist device as defined in Claim 23, wherein said digital signal processor comprises a programming and arithmetic logic (PAL) unit and a memory unit.

25. (New) A method for restoring a damaged heart in a living being comprising the steps of:

sending electrical pulses to the heart via a pacemaker implanted within the living being;

measuring clinical signals from the heart in response to said electrical pulses sent by said pacemaker;

measuring a clinical signal from at least one other organ of the living being;

sending said clinical signals to a control means;

entering a command into said control means;

controlling a blood output pressure and volume of a linear flow blood pump implanted in the living being with said control means based on said entered command and said measured clinical signals; and

controlling at least one of a pulse rate and voltage of said electrical pulses sent by said pacemaker with said control means based on said entered command and said measured clinical signals.

26. (New) A method as defined in Claim 25, further comprising the step of pre-programming said control means with a prototype command, wherein said control means controls said linear flow blood pump and said pacemaker based additionally on said prototype command.

27. (New) A method as defined in Claim 25, wherein said control means controls two linear flow blood pumps independently.

28 (New) A method as defined in Claim 25, wherein said control means controls said blood output pressure and volume of said linear flow blood pump by varying the magnitude and frequency of electrical motor currents of said pump.

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29. (New) A method as defined in Claim 25, wherein said clinical signals from the heart and from the at least one other organ are measured across the skin of the living being with a magnetic induction means.

30. (New) A method as defined in Claim 25, wherein said control means transmits a radio signal to said pacemaker for controlling said pulse rate and voltage of said pacemaker.

31. (New) A ventricular assist device as defined in Claim 25, wherein said control means comprises a digital signal processor.

32. (New) A method as defined in Claim 31, wherein said digital signal processor comprises a programming and arithmetic logic (PAL) unit and a memory unit.